REMARKS

Claims 1–6 stand allowed. Claims 7–54 stand rejected under 35 U.S.C. § 101 as allegedly lacking utility or being directed to non-statutory subject matter. Applicants respectfully traverse the rejection on both grounds.

With respect to the Examiner's contention that claims 7–54 lack utility, Applicants respectfully traverse the rejection because each of the rejected claims is clearly directed to a digital television signal as recited unambiguously in the very first sentence of the specification. Because such signals clearly have a specific and substantial utility—the transmission of video images free of distortion or "ghosts"— the rejection under § 101 on utility grounds is improper, and Applicants respectfully request that it be withdrawn. *See* M.P.E.P. § 2107.

Applicants also respectfully traverse the rejection under § 101 to the extent it relies on the Examiner's contention that the claims are directed to non-statutory subject matter. Applicants' claimed ghost-cancellation reference signal is both a "manufacture" and a "composition of matter" as the U.S. Supreme Court has construed those terms in 35 U.S.C. § 101.

In *Diamond v. Chakrabarty*, 447 U.S. 303, 206 U.S.P.Q. 193, 197 (1980), the Supreme Court stated that statutory subject matter under § 101 consists of "anything under the sun that is made by man" except for "[t]he laws of nature, physical phenomena, and abstract ideas."[1] Applicants' claimed digital television signals are clearly man-made and are neither laws of nature, physical phenomena, nor abstract ideas. Consequently, the claimed signals are patentable under § 101. *See id.* at 197 ("Judged in this light, respondent's [invention] plainly qualifies as

[1] The Supreme Court has also defined the terms "manufacture" and "composition of matter" in § 101. A "manufacture" means "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Id.* at 196–97 (quoting *Am. Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 U.S.P.Q. 131, 133 (1931)). A "composition of matter" means "all compositions of two or more substances and ... all composite articles, whether they be the results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." *Id.* at 197 (quoting *Shell Dev. Co. v. Watson*, 149 F. Supp. 179, 180, 113 U.S.P.Q. 265, 266 (D.D.C. 1957)).

patentable subject matter. His claim is not to a hitherto unknown natural phenomenon, but to a nonnaturally occurring manufacture or composition of matter—a product of human ingenuity 'having a distinctive name, character [and] use.'... Here, by contrast, the patentee has produced a new [invention] with markedly different characteristics from any found in nature and one having the potential for significant utility. His discovery is not nature's handiwork, but his own; accordingly it is patentable subject matter under § 101.") (citations omitted); *id.* at 197 ("In choosing such expansive terms as 'manufacture' and 'composition of matter,' modified by the comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope."); *accord In re Alappat*, 33 F.3d 1526, 1542 (Fed. Cir. 1994) (en banc) ("The use of the expansive term 'any' in § 101 represents Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101 and the other parts of Title 35."). In view of the expansive scope of patentable subject matter under § 101 as construed by the Supreme Court and the Federal Circuit, Applicants respectfully submit that claims 7–54 as presented constitute patentable subject matter and respectfully request that the § 101 rejection be withdrawn.

Applicants also respectfully note that the Office has allowed other applications with claims directed to digital television signals *per se*, including Applicants' own U.S. Patent No. 6,300,984, cited by the Examiner as art pertinent to the present disclosure. Each of claims 1–18 and 21 of that patent is directed to "an electrical signal received by a television signal receiver." Even if the Examiner could draw a sufficient distinction between the subject matter of the present claims (which are directed to "an electromagnetic signal") and that of U.S. Patent No. 6,300,984 to support the present rejection under § 101, he has not explained that distinction in

the Office action. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection under § 101 and allow claims 7–54 in the next action from the Office.

The Examiner is invited to contact the undersigned attorney at (713) 787-1631 with any questions, comments or suggestions relating to this patent application.

Respectfully submitted,

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